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EDITORIAL

Immunotherapy and Tolerance—Cutting Edge

In *Allergology International* (AI) Vol. 62 No. 4, we offer a series of review articles entitled "Immunotherapy and Tolerance - Cutting Edge", original articles, and letters to the editor. We believe that this issue of the journal will be of great help for both clinical and basic investigators working in this field.

Conventional subcutaneous injection has been the standard practice in allergen immunotherapy since it was first described by Dr. Noon more than 100 years ago.[1] Its efficacy and safety have been demonstrated by a number of clinical studies, including the first double-blind controlled trial reported by Dr. Frankland.[2] Dr. Durham has reevaluated the clinical and mechanical significance of immunotherapy in recent years from a novel point of view and has made important contributions to this field.[3-6] To introduce this review series, Dr. Durham's group briefly reviews the current understanding of the efficacy and mechanisms of immunotherapy. [7]

Although conventional subcutaneous injection of allergen extracts is still the mainstay of treatment, sublingual immunotherapy is now recognized as an as effective and safe alternative, especially in Europe. Sublingual tablets are now close to market in both the USA and Japan. Dr. Canonica has been influential in the introduction of sublingual immunotherapy into the clinic.[8-11] Here, Dr. Canonica's group comprehensively reviews the emerging role of sublingual immunotherapy and discusses future directions for this approach.[12]

Because immunotherapy is found worldwide in allergy clinics, the underlying mechanisms involved in its use have been studied extensively. Dr. Akdis's laboratory, a pioneering group, studied the role of tolerance in subcutaneous immunotherapy against bee venom among beekeepers.[13,14] For this issue, Dr. Akdis's group presents an extensive review of the studies conducted on the mechanisms of immunotherapy and induction of tolerance, with a discussion of potential directions for immunotherapy in the future.[15]

Among the eight original articles and three letters-to-the-editor in this issue, Yokooji *et al*. report the identification of the allergens in hydrolyzed wheat proteins (HWP)-dependent exercise-induced anaphylaxis (WDEIA).[16] HWP-WDEIA, used in a popular brand of facial soap, has recently become a big social problem in Japan. Many Japanese patients with HWP-WDEIA have the unique characteristic that they develop allergic reactions following exercise after ingesting natural wheat products. This contrasts with HWP-WDEIA in European patients suffering from immediate allergic reactions when they eat HWP-containing food, while they can eat normal wheat products without problems. The authors speculate that a specific-IgE to HWP cross-reacting with wheat proteins exists in Japanese HWP-WDEIA patients, finding that IgE antibodies recognizing α/β-, γ- and ω1,2-gliadin, components of gluten, are causative allergens in these patients. This is useful information for diagnosis and desensitization therapy for HWP-WDEIA. Ashok Kumar *et al*. report gene cloning of an allergen from sapodilla whose fruits occasionally cause oral allergy syndrome. The identified new allergen, an acidic thaumatin-like protein (TLP), is homologous with other known allergic TLPs contained in olives, grapes, kiwis, bell peppers, and tobacco.[17]

We appreciate all the authors for their contributions to the present issue of *Allergology International*.

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